

## University of Groningen

### Global players with local impact

Nagy, Sandra

DOI:  
[10.33612/diss.132814240](https://doi.org/10.33612/diss.132814240)

**IMPORTANT NOTE:** You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2020

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*  
Nagy, S. (2020). *Global players with local impact: Novel biomarkers for fertility*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.132814240>

#### Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

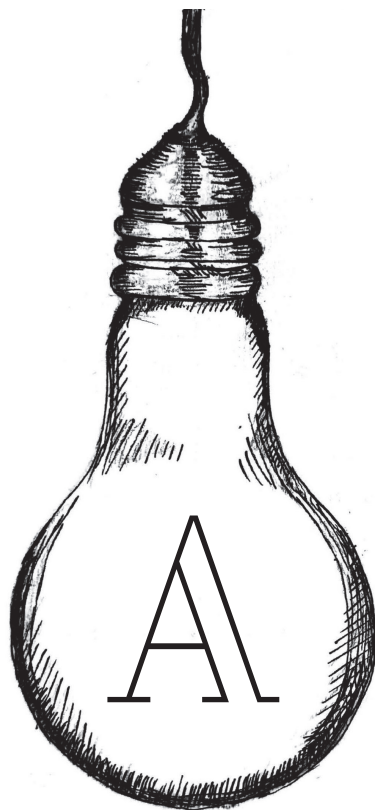
The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

#### Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

# APPENDICES



**About the Author**  
**List of Publications**  
**Acknowledgements**

## ABOUT THE AUTHOR

Ruxandra-Andreea Nagy was born on September 27th, 1991 in Brasov, Romania. Next to completing her pre-university education with focus on mathematics and computer science at the National College Andrei Saguna, she followed courses in fine arts at the local art school. In 2010 she was selected for the International Bachelor of Medical Sciences and Global Health at the University of Groningen. Parallel to her medical studies, she followed the Junior Scientific Masterclass research training during which she performed several research internships in the group of Cardiovascular Regenerative Medicine (CAVAREM) at the University of Groningen, led by Prof. Dr. Marco Harmsen. The focus was on generation of induced pluripotent stem cells from adipocyte-derived stem cells and on the effects of hyperglycemia on adipose-derived stem cells. In 2013 she obtained her Bachelor of Science and continued her medical studies with the Master of Medicine (Dutch curriculum). She performed her social medicine internship at the KU Leuven in Belgium where, next to her clinical duties, she performed research in the team of Prof. Dr. Lode Godderis on the clinical picture and epigenetic alterations in chronic solvent encephalopathy. During her master studies she was accepted for the MD/PhD program (2+2 years) and she performed her PhD at the Department of Paediatrics and the Department of Gynaecology and Obstetrics, section Fertility Medicine at the University Medical Center Groningen under the supervision of Prof. Dr. Uwe Tietge, Prof Dr. Annemieke Hoek and Prof. Dr. Folkert Kuipers. In her research, she studied the presence of markers of systemic metabolism in follicular fluid and their relation to oocyte and embryo quality in modified natural cycle-IVF. Next to her academic and medical training, she was actively involved in organizing the PhD Day 2018 congress and in MindMint, the first PhD research communication platform in Groningen. Following her PhD she worked as a junior medical doctor at the Medical Center Leeuwarden. In order to find out what is next in her career, please attend her PhD defense on the 23<sup>rd</sup> of September 2020.



Photograph author: Niels de Vries | [fotograafniels.nl](http://fotograafniels.nl)

## LIST OF PUBLICATIONS

The anti-inflammatory function of follicular fluid HDL and outcome of modified natural cycle-in vitro fertilization. (Biology of Reproduction, 2020)

Jia C, **Nagy RA**, Homminga I, Hoek A, Tietge UJF

Trimethylamine-N-oxide is present in human follicular fluid and is a negative predictor of embryo quality. (Human Reproduction, 2020)

**Nagy RA**, Homminga I, Jia C, Liu F, Anderson JLC, Hoek A, Tietge UJF.

Anti-oxidative function of follicular fluid HDL and outcomes of modified natural cycle-IVF. (Scientific Reports, 2019)

**Nagy RA**, van Montfoort APA, Groen H, Homminga I, Andrei D, Mistry RH, Anderson JLC, Hoek A, Tietge UJF.

The Origin of Follicular Bile Acids in the Human Ovary. (American Journal of Pathology, 2019)

**Nagy RA**, Hollema H, Andrei D, Jurdzinski A, Kuipers F, Hoek A, Tietge UJF.

Preconceptional Maternal Bile Acids and Birth Weight of Neonates. (Hepatology Communications, 2019)

van Montfoort APA, **Nagy RA**, van Echten-Arends J, Hoek A, Tietge UJF.

Differential miRNA expression profiles in cumulus and mural granulosa cells from human pre-ovulatory follicles (MicroRNA, 2019)

Andrei D, **Nagy RA**, van Montfoort APA, Tietge UJF, Terpstra M, Kok K, van den Berg A, Hoek A, Kluiver J, Donker RB

Diagnostic process of chronic solvent encephalopathy (EMC Occupational and environmental pathology, 2017)

**Nagy RA**, Viaene MK, Van Valen E, Reis J, Bonnetterre V, Lenderink AF, Godderis L

Presence of bile acids in follicular fluid and their relation with embryo development in modified natural cycle IVF (Human Reproduction, 2015)

**Nagy RA**, Montfoort APA, Dijkers A, van Echten-Arends J, Homminga I, Land JA, Hoek A, Tietge UJF

Hyperglycaemia induces bioenergetic changes in adipocyte-derived stromal cells while their pericytic function is retained (Stem cells and development, 2016)

Hajmoussa G, Elorza AA, Nies VJM, Jensen EL, **Nagy RA**, Harmsen MC

## ACKNOWLEDGEMENTS

In all honesty, the words that I have said most often during my PhD were “thank you”, because research is a team effort. So I think it is only appropriate to close this chapter with a final round of gratitude.

First of all, I would like to thank my promotor, **prof. Folkert Kuipers**, **prof. Annemieke Hoek** and **prof. Uwe Tietge**. Thank you for accepting me in your research groups and for your continued support.

**Annemieke**, I am impressed by your kindness and leadership, you are an inspiration to women striving for an academic/medical career and, above all, you are a great mentor. **Uwe**, thank you for teaching me that there are no limits to what you can achieve with hard work and out-of-the-box thinking. I am forever grateful for your support (and tempering, when needed) and I feel lucky to have had you as a mentor.

My sincere gratitude to the members of the assessment committee and **prof. J.S.E. Laven**, **prof A. Tivesten**, **prof. H.J. Verkade** for critically reading and approving my PhD thesis. Also I would like to warmly thank all the co-authors of the articles in this thesis for their valuable contribution and guidance.

I would also like to express my appreciation to **dr. Janine Kruit**, **dr. ir. Maaike Oosterveer**, **prof. Henk Jan Verkade**, **dr. Hans Jonker**, **prof. dr. Bert Groen** and **dr. ing. Theo van Dijk** for their valuable contributions during group meetings. Also I would like to thank **dr. Henk Groen** for his support with statistical problems and for showing me that advanced statistics is actually quite fun. Last but not least, thank you to **prof. Ido Kema** and to **Martijn van Faassen** for their crucial help with sterols and TMAO measurements, and thank you to **Marcel de Vries** for his help with untargeted proteomics.

Over the years I have come to see L2 (the fertility center) as a second home, a place filled with friendly faces, a great atmosphere and so much support. To the doctors, the embryologists, the laboratory technicians, and all of the supporting staff: thank you, this project would not have been possible without you. **Aafke van Montfoort**, you were never scared to ask the tough scientific questions, you were impeccable in your work and unbiased in your judgement. **Irene Homminga**, thank you for all the times that we worked side by side to figure out statistics, patient enrollment and study proposals. **Jannie van Echten-Arends**, your knowledge, support and attention to detail were crucial when the project took roots. **Eus**, **Gerlinde**, **Janneke** and the whole lab

team – thank you for allowing me a sneak peek into the laboratory, and thank you for making the whole logistics with the follicular fluid and the embryo data possible. Dear **Arzu**, every time I enter L2 I look for you. And there is one person who has contributed enormously to my thesis, likely without realizing it: **Marie-José Pelinck**, your work was the building blocks for mine.

Thank you to the whole laboratory Y2. To all the people that have taught me how not to set the lab on fire: **Niels, Aycha, Angelika, Henk, Renze, Martijn, Trijnie**, but also **Tjasso, Manon, Dianne, Janette**, I honestly cannot keep track of all the times you saved me. **Arne**, thank you for your guidance and support during my very first PhD project in Uwe's team. **Jan Freark**, thank you for your help in the lab during my whole stay in Y2 - your knowledge, lab experience and kindness (despite the grumpy cat mask) never cease to amaze. To the people in team Uwe: **Josie, Rima, Sanam, Lidiya, Congzhuo** and **Fan** – we were all part of a great scientific family. To **Irene** and **Miryam**, I will not forget our fun ladies night and lab breaks. And my dear **Daniela**, we made a great team together and your current department is lucky to have you. Of course, my office mates: **Archie, Yingying, Mang Fen, Josie, Joanne, Marcela, Herson**, and **Rumei**, it was great sharing the good, the bad and the fun moments of our PhDs. To **Lori** and **Dennis**, here's to the good memories of pipetting and happy hour. And thank you to all of the PhDs, postdocs and students for the (non)scientific talks and laughs: **Anoush, Natalia, Onne, Hilde, Angela, Dorieke, Yu, Anna B, Anna P, Marleen, Maaïke, Matilda, Ivo, Dicky, Chris, Anne Claire, Marti, Andrea, Tim**, to name just a few. From the MDL club I would also like to thank a few people for making me feel a part of the group: **Natalia, Raphael, Danial, Archiiiiiii, Alejandra, Turu, Yana, Mireya, Ali, Yingying, Mangfen, Alfredo, Zongmei, Werna, Yana, Floris, Johanna** and of course **Han** and **Klaas Nico**.

A.

Here's a special thank you to the groups that formed during the PhD. The Game of Thrones group: **Violeta** (drama is always best when shared with a friend), **Rima** (the one who fired me at SSAR), **Archie** (we talked so much that we had to build a "wall" between our desks to get work done) and **Fabio** (my partner in crime) – I miss you guys so much, and I still keep our group photo on my desk. To the core members of the Journal Club M&B: **Fabio, Turu, Angela** – our meetings were the high point of my week, and please think of me whenever you present at an M&B congress. The ESHRE group: **Derk** (remember us walking around the fertility congress with sperm-shaped balloons? We were such crazy kids) and **Talita** (you are such an inspirational power woman, scientist and friend). And the lovely mood booster squad, **Anoush** and **Fabio**.

I would also like to warmly thank the people who, outside of my PhD, have contributed enormously to me becoming the scientist I am today: **prof. Marco Harmsen**, **prof. Lode Godderis**, **Radu Duca** and **Manosij Gosh**. And also a special thank you to the **neurology group** at the Medical Center Leeuwarden: next to their invaluable support in my first adventures as a clinician, they took care that this book received the final touches.

And of course, to my dear paranympths. **Natalia**, I am forever grateful for your support outside of the laboratory, and I think that we both proved that science goes well with Latin dancing. To **Fabio** and all the wacky project we started together during the PhD, from the journal club to Apoooco – I look forward to all of the adventures that await us.